IN THE ABSTRACT:

Please amend the abstract as follows. No new matter has been introduced.

The present invention relates to an optoelectronic sensor for demodulating a modulated photon flux (50), and to a measuring device, in particular for 3D distance measurement, having at least one optoelectronic sensor of this type. The optoelectronic sensor has at least two collecting zones 10 ~~(20, 22)~~ introduced in a semiconductor region (10), which collecting zones are for example diffused into the semiconductor region and doped inversely with respect to the semiconductor region (10). The collecting zones ~~(20, 22)~~ serve for collecting and tapping off minority carriers 15 generated upon penetration of a modulated photon flux (50). Furthermore, at least two control zones ~~(32, 34)~~ are introduced in the semiconductor region (10), which control zones generate a drift field in a manner dependent on a control voltage that can be applied to the control zones ~~(32, 20 .34)~~, the control zones ~~(32, 34)~~ being of the same doping type as the semiconductor region (10).

~~(Figure 1)~~